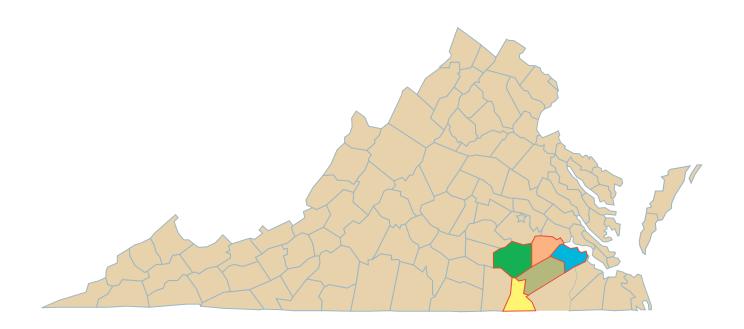
Community Profile of WIA XV

Dinwiddie County • Greensville County • Prince George County • Surry County • Sussex County • City of Colonial Heights • City of Emporia • City of Hopewell • City of Petersburg









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WIA XV

I. Executive Summary

This report provides a demographic, economic, and educational profile of Workforce Investment Area XV (WIA XV), Crater Area. The purpose of these profiles is to assist on-going strategic planning efforts by providing a solid, data-driven, foundation for strategic decision-making. The primary findings from this report are:

- Between 2000 and 2010, WIA XV will experience a major increase in its 55 and over population. The net result of this trend will be a significant "graying" of the overall population.
- One implication of this trend is that younger entrylevel workers will be in short supply.
- WIA XV is experiencing, and will likely continue to experience, a shift away from employment in Government and Manufacturing and toward employment in Services and Retail Trade.
- One implication of this shift is that the Service sector

 specifically, technology, health care, and education
 is expected to account for much of the demand for trained workers between 1998 and 2008.



WIA XV

I. Introduction

This report provides a community profile of Workforce Investment Area XV (WIA XV). It was produced by the Virginia Employment Commission, with assistance from the Virginia Community College System and the Virginia Economic Development Partnership, at the request of the Special Advisor to the Governor for Workforce Development. It is intended to assist on-going strategic planning efforts within the Workforce Investment Boards by providing a solid, data-driven, foundation for strategic decision-making.

The report is divided into four major sections. The first contains a profile of regional demographic characteristics and trends, the second supplies similar information for the regional economy, and the third provides a profile of regional education characteristics and projected demands for training and skills. These are followed by a summary and conclusion section.





II. Demographic Profile

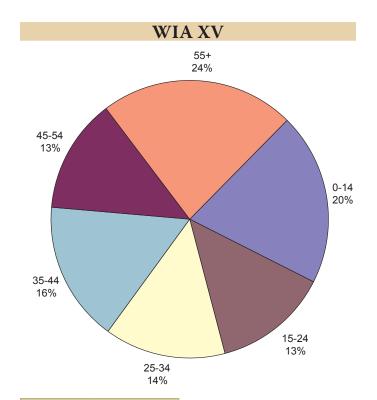
Population demographics are the single most important factor affecting WIA XV's future labor force. Some key features of the area's population are as follows:

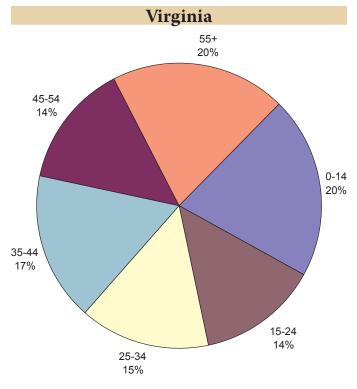
- Tends to be slightly older. Where statewide individuals who are 55 and older comprise 20 percent of the population, in WIA XV they comprise 24 percent of the population.
- Larger proportion of minorities. Where statewide minorities comprise 28 percent of the overall population, in WIA XV they comprise 49 percent of the population.
- Projected to increase by 1,571 persons (or 0.9 percent) between 2000 and 2010. The largest increase is expected in Prince George County (2,876), followed by Dinwiddie County (1,767). Sussex County and the cities of Emporia, Hopewell, and Petersburg are projected to loose population (-504, -165, -577, and -3,340 respectively).
- Smaller proportion of individuals who "speak English less than well". Where statewide the proportion of individuals five and older who speak English less than well is 2.2 percent, in WIA XV it is only 0.8 percent.
- The city of Petersburg draws the largest number of in-commuters (10,474) of any locality within WIA XV, followed by Prince George County (8,363) and the city of Colonial Heights (6,059). On the whole WIA XV is neither a net importer nor net exporter of workers, with 21,330 individuals commuting into the area for work, while 22,815 of the area's residents commute to localities outside of WIA XV for work.



WIA XV

Population by Age Cohort





WIA XV	
0-14	33,373
15-24	22,310
25-34	23,593
35-44	27,313
45-54	22,553
55+	37,988
Total	167,129

Virginia		
0-14	1,453,452	
15-24	963,469	
25-34	1,036,911	
35-44	1,200,950	
45-54	999,548	
55+	1,424,169	
Total	7,078,494	

United States		
0-14	60,253,375	
15-24	39,183,890	
25-34	39,891,724	
35-44	45,148,527	
45-54	37,677,952	
55+	59,266,437	
Total	281,421,906	

United States			
55+ 21%			
45-54 13% 0-14 22% 15-24 14%			

Subparts may not add to total due to rounding. Source: 2000 Census.





Population by Race/Ethnicity

WIA XV			
Total Population	167,129	100.0%	
Race			
White	85,855	51.4%	
Black or African American	75,577	45.2%	
American Indian and Alaska Native	422	0.3%	
Asian	1,624	1.0%	
Native Hawaiian and Other Pacific Islander	110	0.1%	
Other and Multi-Race	3,541	2.1%	
Ethnicity			
Hispanic or Latino (of any race)	3,595	2.2%	

Virginia			
Total Population	7,078,515	100.0%	
Race			
White	5,120,110	72.3%	
Black or African American	1,390,293	19.6%	
American Indian and Alaska Native	21,172	0.3%	
Asian	261,025	3.7%	
Native Hawaiian and Other Pacific Islander	3,946	0.1%	
Other and Multi-Race	281,969	4.0%	
Ethnicity			
Hispanic or Latino (of any race)	329,540	4.7%	

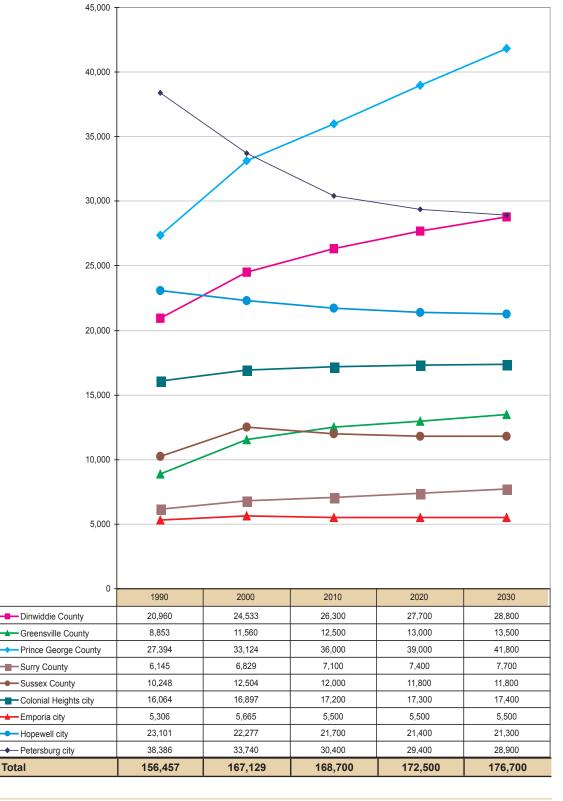
United States			
Total population	281,421,906	100.0%	
Race			
One race	274,595,678	97.6%	
White	211,460,626	75.1%	
Black or African American	34,658,190	12.3%	
American Indian and Alaska Native	2,475,956	0.9%	
Asian	10,242,998	3.6%	
Native Hawaiian and Other Pacific Islander	398,835	0.1%	
Other and Multi-Race	22,185,301	7.9%	
Ethnicity			
Hispanic or Latino (of any race)	35,305,818	12.5%	

5



WIA XV

Population Change

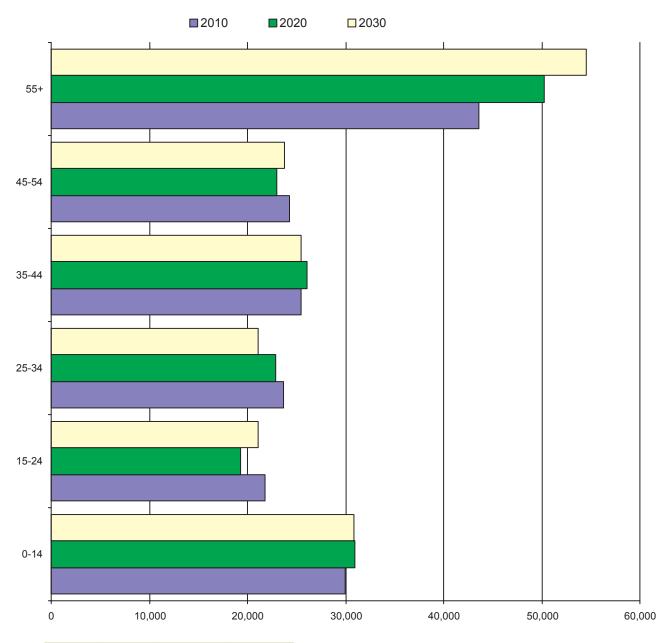


Data for 2010 - 2030 are projections. Subparts may not add to total due to rounding. Source: Virginia Employment Commission, 08/03, U.S. Census Bureau.





Population Projections by Age Cohort



	2010	2020	2030
0-14	29,960	30,960	30,840
15-24	21,762	19,344	21,066
25-34	23,681	22,924	21,105
35-44	25,487	26,038	25,443
45-54	24,241	22,939	23,759
55+	43,569	50,295	54,486
Total	168,700	172,500	176,700

Subparts may not add to total due to rounding. Source: Virginia Employment Commission.





English Language Skills

(Age 5 and over)

WIA XV		
	Total	Speak English less than well
Dinwiddie County	23,233	66
Greensville County	11,161	16
Prince George County	31,074	326
Surry County	6,454	34
Sussex County	11,923	68
Colonial Heights city	16,072	186
Emporia city	5,346	92
Hopewell city	20,654	198
Petersburg city	31,517	237
WIA XV	157,434	1,223
Virginia	6,619,266	143,865
Percent of Individuals who speak E	English less tha	n well
Virginia	2.17%	
WIA XV	0.78%	





Commuting Patterns¹

1 . •	/ - \
In-Commute (101
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	In-Commute (10)								
	Dinwiddie	Greensville	Prince George	Surry	Sussex	Colonial Heights	Emporia	Hopewell	Petersburg
Dinwiddie		54	833	11	57	806		374	1,978
Greensville	32		11		84	14	1,412	8	29
Prince George	266	54		49	233	743	12	1,454	1,635
Surry	18		87		238	24		95	27
Sussex	72	341	265	82		52	138	77	409
Colonial Heights	193	22	694		6		4	348	1,145
Emporia	17	778	26		65			6	40
Hopewell	208	36	1,093		74	542			783
Petersburg	1,039	64	1,417	6	141	760	5	516	
Total To County/City From WIA XV	1,845	1,349	4,426	148	898	2,941	1,571	2,878	6,046
Other VA Localitites	2,069	1,104	3,769	1,185	713	3,109	519	2,924	4,341
North Carolina	54	777	39	7			360	31	46
Other Out of State	16		129	17		9	12	59	41
Total to County/ City:	3,984	3,230	8,363	1,357	1,611	6,059	2,462	5,892	10,474
Total In State	3,914	2,453	8,195	1,333	1,611	6,050	2,090	5,802	10,387
Total Out of State	70	777	168	24	0	9	372	90	87

Source: "In-Commuting Patterns" and "Out-Commuting Patterns," 2000 Census data, Virginia Employment Commission, http://www.vec.state.va.us/vecportal/lbrmkt/lmi_menu.cfm

Example of how to use the Commuting Patterns table:

"How many of Hopewell's residents commute to Prince George?" On the horizontal or To axis, locate the column labeled Prince George. On the vertical or From axis, locate the row labeled Hopewell. The intersection of the row and column, 1093, is the number of Hopewell's residents that commute to Prince George County.

^{1.} Empty cells within the table indicate that the area's commuting represents less than .2% of total commuting or may be zero.

^{2.} Total Commuting to/from WIA= Other VA Localities + Out of State



WIA XV

Commuting Patterns¹

		Total From County/ City To WIA XV	Other VA Localities	North Carolina	Other Out of State	Total From County/ City:	Total In State	Total Out of State
	Dinwiddie	4,113	3,616			7,729	7,729	0
	Greensville	1,590	460	190		2,240	2,050	190
(From)	Prince George	4,446	4,317			8,763	8,763	0
e (Fi	Surry	489	1,715		7	2,211	2,204	7
Out-Commute	Sussex	1,436	892			2,328	2,328	0
Соп	Colonial Heights	2,412	3,573			5,985	5,985	0
Out-	Emporia	932	188	88		1,208	1,120	88
,	Hopewell	2,736	3,718		20	6,474	6,454	20
	Petersburg	3,948	4,031			7,979	7,979	0

Total WIA Commuting ²

Total Commuting To WIA: 21,330

Total Commuting From WIA: 22,815









WIA XV

III. Economic Profile

Where population demographics provide information on underlying trends within the labor force, economic data provides more detailed information on the likely demand for specific types of workers. Some key features of WIA XV's economy are as follows:

- Unemployment rates are consistently above the statewide average. In 2002, WIA XV's unemployment rate was 5.1 percent, 1.0 percent above the statewide average of 4.1 percent.
- Employment is concentrated in Government (28.8 percent), Manufacturing (13.5 percent), Retail Trade (12.9 percent), Health Care (8.2 percent), and Accommodation/Food (7.4 percent).
- Most recent new hires have been in Retail Trade (35.2 percent), Services (31.6 percent), and Manufacturing (13.3 percent).
- Overall personnel turnover is below the statewide average (12.5 percent vs. 13.2 percent). Personnel turnover tends to be highest in Agriculture, Forestry, and Fishing (16.1 percent), followed by Construction (15.3 percent), Services (15.1 percent), Retail Trade (14.5 percent), and Wholesale Trade (10.1 percent).
- Weekly wages were highest in Utilities (\$1,307), followed by Federal Government (\$929), Manufacturing (\$800), Professional/Technical (\$787), and Wholesale Trade (\$628).
- Industries with the largest proportion of workers at or near retirement age (55 and above) are Transportation (47.1 percent), Services (16.2 percent), Agriculture (15.7 percent), and Finance, Insurance, and Real Estate (15.5 percent).
- Employment projections indicate that between 1998 and 2008, most employment growth will occur in Services (62,429 additional jobs), Retail Trade (16,127 additional jobs), and Finance, Insurance, and Real Estate (15,860 additional jobs). In contrast, Manufacturing and Federal Government are projected to loose –1,627 and –1,083 jobs respectively.
- Employment projections also indicate that between 1998 and 2008, the biggest growth in occupational employment will be in Systems Analysts (3,010 open-

- ings), Adjustment Clerks (2,050 openings), Computer Support Specialists (1,840), and Home Health Aides (1,770 openings). Alternatively, the biggest declines in occupational employment will be in Private Child Care Workers, Ex Peripheral Computer Operators, and Printing Film Strippers.
- Based on January 2004 Unemployment data, the largest pools of available workers are in the Production,
 Transportation and Material Moving, Construction,
 and Office and Administrative Support occupations.





Unemployment Rate Trends







Employers by Size of Establishment

Number of Employees	WIA XV	Virginia
0 - 4	1,695	107,195
5 - 9	768	35,763
10 - 19	476	25,141
20 - 49	342	18,074
50 - 99	101	6,136
100 - 249	63	3,388
250 - 499	23	1,029
500 - 999	17	409
1000 +	D	229
TOTAL	3,488	197,364

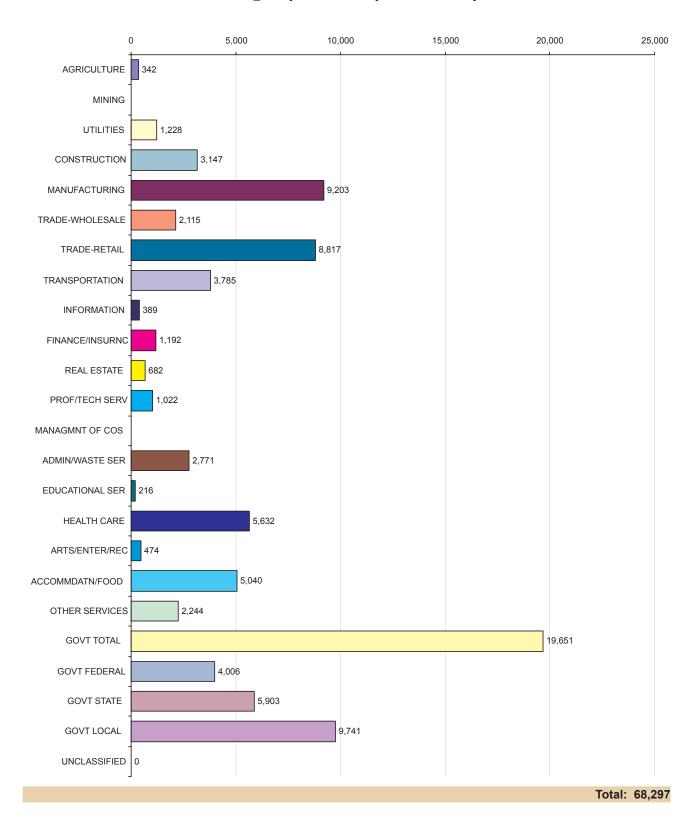
Employment by Size of Establishment

Number of Employees	WIA XV	Virginia
0 - 4	3,888	188,377
5 - 9	5,085	238,634
10 - 19	6,362	340,363
20 - 49	10,571	553,221
50 - 99	6,993	422,392
100 - 249	9,301	503,348
250 - 499	8,091	352,727
500 - 999	12,473	274,493
1000 +	D	543,583
TOTAL	66,320	3,417,138





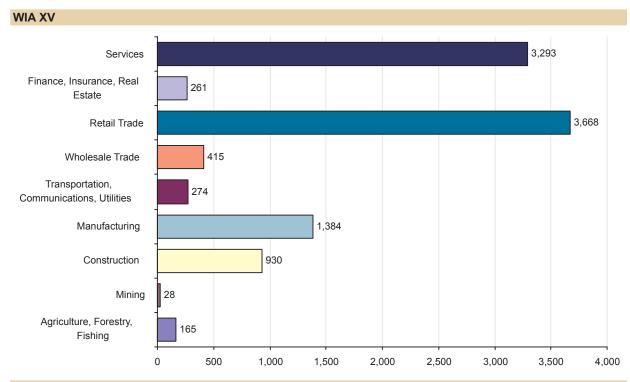
Employment by Industry



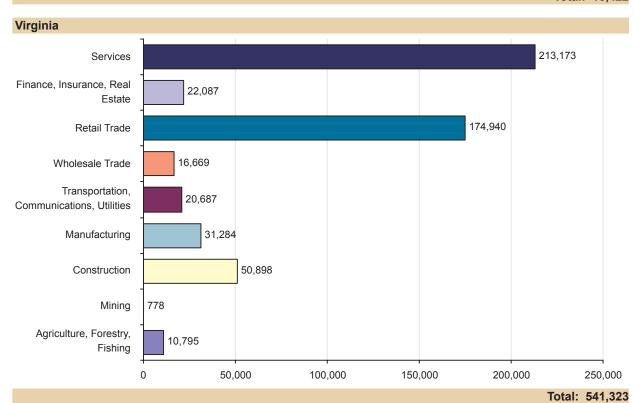




New Hires by Industry



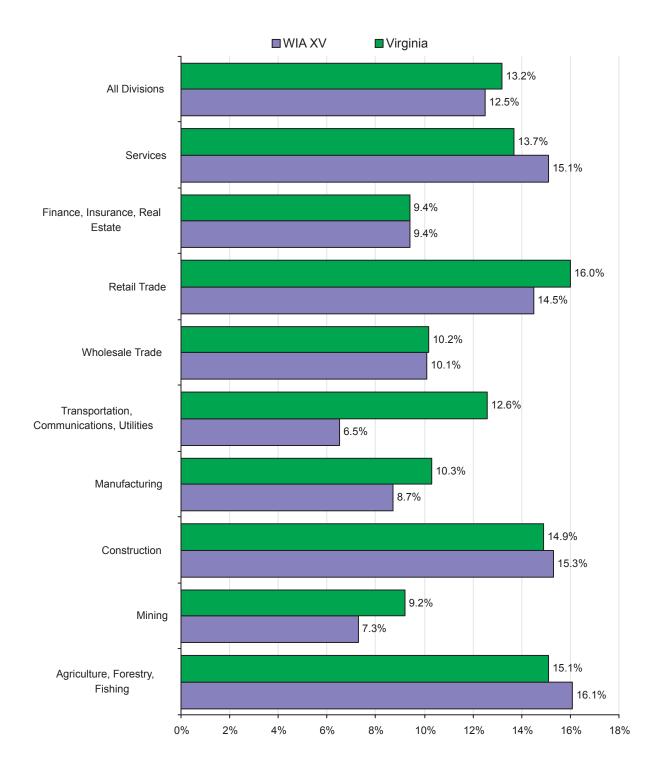








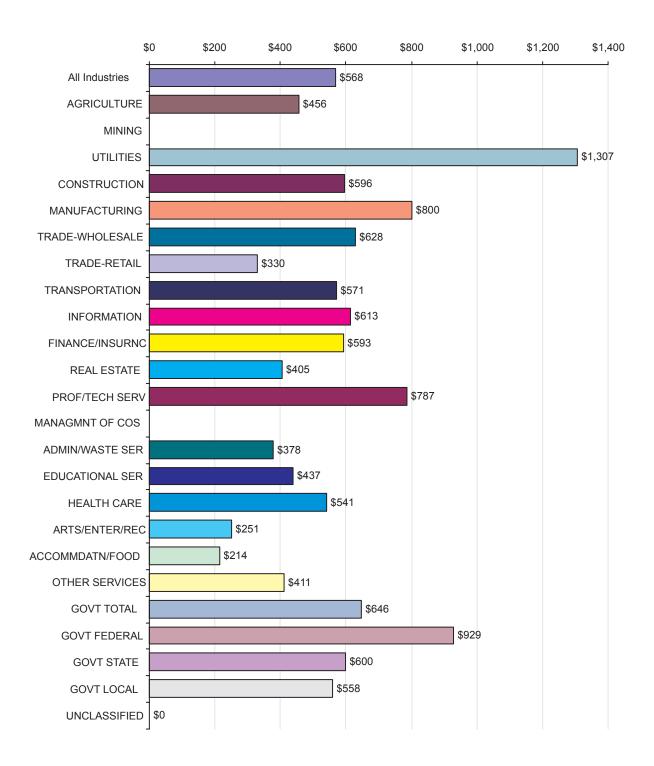
Turnover by Industry







Average Weekly Wage by Industry







Age of Workers by Industry

WIA XV Virginia

	14 - 18	19 - 21	22 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 99	14 - 99
Total Francisco	2,312	3,266	2,968	10,081	13,196	10,420	5,189	1,698	49,128
Total Employment	106,356	162,652	180,601	659,050	739,013	576,728	282,064	81,995	2,788,457
Agriculture, Forestry, and	21	35	38	116	122	110	60	22	523
Fishing	2,219	3,048	3,158	9,842	9,481	6,372	2,705	1,600	38,424
Mining	0	9	12	54	68	54	17	0	214
wiiiiig	22	221	366	1,702	2,803	3,498	1,129	136	9,876
Construction	60	169	199	751	1,010	703	338	127	3,355
Construction	3,907	10,799	13,521	50,770	61,204	41,178	18,359	6,009	205,745
Manufacturing	54	284	416	2,017	3,047	2,459	1,205	181	9,663
Manufacturing	2,142	9,334	14,693	72,949	106,504	94,364	46,938	7,579	354,504
Transportation, Commu-	29	166	306	596	762	657	937	35	2,065
nications, and Utilities	1,059	4,542	8,097	42,450	52,051	40,960	16,851	3,199	169,208
Wholesale Trade	76	138	136	594	871	626	282	87	2,809
Wilolesale ITaue	1,691	4,449	6,486	33,407	43,317	32,948	15,708	4,557	142,564
Retail Trade	1,694	1,804	1,228	2,922	3,255	2,423	1,286	602	15,213
Retail Haue	67,335	76,880	57,338	136,252	130,099	94,331	48,135	20,155	630,522
Finance, Insurance, and	33	92	117	431	551	433	229	75	1,960
Real Estate	1,775	7,281	13,158	53,760	56,683	42,503	20,070	5,079	200,308
Sorvicos	366	694	742	2,690	3,336	2,744	1,485	563	12,618
Services	26,206	46,097	63,782	257,918	276,866	220,571	112,170	33,682	1,037,291





Total Employment by Industry

	Е	mploymen	Percent	Change	
	Esti- mated 1998	Pro- jected 2008	Change	Total	Annual
Total All Industries	528,315	637,754	109,439	20.71%	1.90%
Agriculture, Forestry and Fishing, Total	5,692	6,188	496	8.71%	0.84%
Mining, Total	806	684	-122	-15.14%	-1.63%
Construction, Total	32,551	35,634	3,083	9.47%	0.91%
Manufacturing, Total	61,152	59,525	-1,627	-2.66%	-0.27%
Durable Goods Manufacturing, Total	21,872	22,649	777	3.55%	0.35%
Nondurable Goods Manufacturing, Total	39,280	36,876	-2,404	-6.12%	-0.63%
Transportation and Public Utilities, Total	32,010	35,521	3,511	10.97%	1.05%
Transportation, Total	21,220	23,818	2,598	12.24%	1.16%
Communications and Utilities, Total	10,790	11,703	913	8.46%	0.82%
Wholesale and Retail Trade, Total	125,060	143,453	18,393	14.71%	1.38%
Wholesale Trade, Total	30,859	33,125	2,266	7.34%	0.71%
Retail Trade, Total	94,201	110,328	16,127	17.12%	1.59%
Finance, Insurance, and Real Estate, Total	45,559	61,419	15,860	34.81%	3.03%
Services, Total	172,188	234,617	62,429	36.26%	3.14%
Federal Government (Except Post Office)	12,012	10,926	-1,086	-9.04%	-0.94%
State Government (Except Education and Hospitality)	23,680	27,510	3,830	16.17%	1.51%
Local Government (Except Education and Hospitality)	17,605	22,277	4,672	26.54%	2.38%

Employment by Major Occupation Group

	Employment			C	penings	
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
Total, All Occupations	528,300	637,746	20.72%	125,540	109,446	235,100
Executive, Administrative and Managerial Occupations	37,708	44,533	18.10%	6,670	6,825	13,510
Professional Specialty Occupations	115,620	150,373	30.06%	22,650	34,753	57,490
Marketing and Sales Occupations	67,072	80,951	20.69%	20,090	13,879	33,960
Administrative Support Occupations, Clerical	96,790	114,251	18.04%	20,240	17,461	37,710
Service Occupations	77,505	95,195	22.82%	24,190	17,690	41,890
Agriculture, Forestry, and Fishing Occupations	7,576	8,740	15.36%	2,040	1,164	3,200
Precision Production, Craft and Repair Occupations	52,430	58,549	11.67%	12,320	6,119	18,430
Operators, Fabricators, and Laborers	73,599	85,154	15.70%	17,340	11,555	28,910

Source: Industry and Occupational Employment Projections, 1998 — 2008.

Projections are for the Richmond-Petersburg MSA.





Growth Occupations

	Employment			Оре	enings		Wages
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total	Median Annual Wage
Computer Engineers	1,005	2,170	115.92%	60	1,165	1,230	\$72,380*
Computer Support Specialists	1,707	3,435	101.23%	110	1,728	1,840	\$35,557
Credit Checkers	618	1,139	84.30%	40	521	560	\$23,415
Database Administrators	326	596	82.82%	50	270	320	\$36,836
Bill & Account Collectors	1,381	2,495	80.67%	370	1,114	1,480	\$23,711
Systems Analysts	3,572	6,358	78.00%	220	2,786	3,010	\$56,436
Athletes, Coaches, Umpires	213	373	75.12%	80	160	240	\$34,890*
Paralegals & Legal Assistants	730	1,262	72.88%	60	532	590	\$30,321
Economists	332	563	69.58%	70	231	300	\$76,790*
New Accounts Clerks, Banking	904	1,509	66.92%	290	605	900	\$20,730*
Home Health Aides	2,210	3,668	65.97%	310	1,458	1,770	\$17,900*
Physician Assistants	240	398	65.83%	40	158	200	\$65,810*
Desktop Publishing Specialists	155	257	65.81%	30	102	130	\$33,810*
Loan & Credit Clerks	1,455	2,341	60.89%	150	886	1,040	\$26,339
Adjustment Clerks	3,185	5,028	57.86%	210	1,843	2,050	\$18,060
Ushers, Lobby Attendants, & Ticket Tkrs	428	670	56.54%	80	242	320	\$13,426
Personal & Home Care Aides	604	944	56.29%	160	340	500	\$13,821
Medical Assistants	1,010	1,578	56.24%	250	568	820	\$23,204
Management Analysts	1,378	2,104	52.69%	110	726	840	\$62,606
Health Diagnostics Teachers, Pstscndry	341	519	52.20%	90	178	270	\$59,170*

Declining Occupations

		Employmen	t	Openings			
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total	
Typesetting & Composing Machine Oprs	69	27	-60.87%	10	-42	10	
Railroad Brake, Signal & Switch Oprs	62	30	-51.61%	20	-32	20	
Houskeepers & Butlers, Private	58	31	-46.55%	10	-27	10	
Directory Assistance Operators	97	61	-37.11%	20	-36	20	
Station Installers & Repairers, Telephone	116	74	-36.21%	40	-42	40	
Peripheral EDP Equipment Operators	167	107	-35.93%	20	-60	20	
Film Strippers, Printing	128	83	-35.16%	20	-45	20	
Child Care Workers, Private	378	254	-32.80%	170	-124	170	
Statement Clerks	104	77	-25.96%	10	-27	10	
Transportation Attendants	103	78	-24.27%	20	-25	20	

Source: Industry and Occupational Employment Projections, 1998 — 2008. 2002 OES occupational wage data.

Projections are for the Richmond Petersburg MSA. Wages are for WIA XV.

* These figures represent the Median Annual Wage for Virginia. Wage data for these occupations in WIA XV are not available.



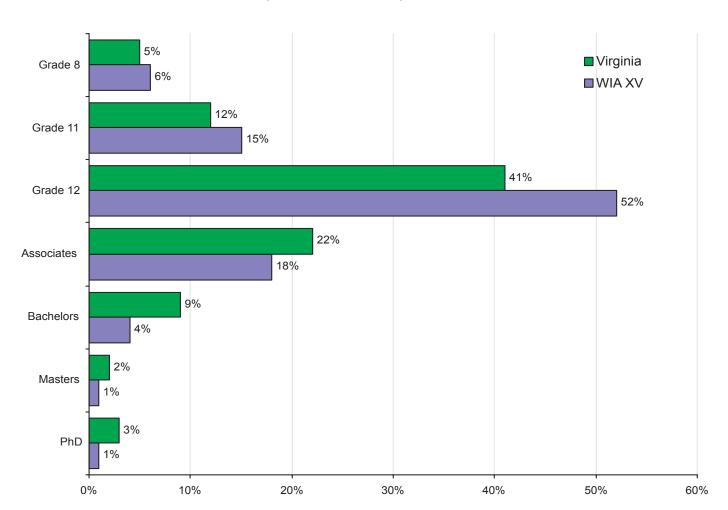


Characteristics of the Unemployed

Marketing the local labor force to new or expanding companies requires information about potential employees that would be available for immediate hire. Monthly data, collected as unemployed individuals apply for unemployment insurance benefits, provide information on various characteristics of the unemployed claimants. Demographic characteristics are recorded for age, race, sex, and education level. In addition, the industry of last employment and the occupation held in the most recent job is also part of the information collected when applicants register for unemployment insurance benefits.

As seen in the chart below, 52% of the unemployed claimants in Crater Area have a grade 12 education level, as compared to only 41% of claimants statewide. On the other hand, at the level of Associates degree and higher, Crater Area has a smaller percentage of claimants relative to the state. While Crater Area has 1,445 unemployed claimants with at least an Associates degree, some of the other regions of the state have a higher ratio of claimants with post-secondary education.

Unemployed Claimants by Education Level







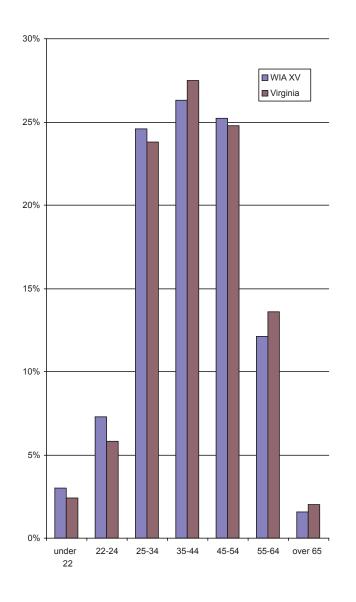
Characteristics of the Unemployed

Production workers comprise the largest category of unemployed beneficiaries in Crater Area, accounting for almost 25% of total claimants in February 2004. Transportation and Material Moving and Construction and Extraction workers also account for a significant share of the unemployed claimants, collectively representing over 26% of the total. Employers requiring workers in these occupation categories will find an abundant supply.

Claimants by Occupation

OCCUPATION	Number of Claimants
Management	262
Business and Financial Operations	92
Computer and Mathematical	42
Architecture and Engineering	35
Life, Physical, and Social Science	13
Community and Social Services	25
Legal	27
Education, Training, and Library	62
Arts, Design, Entertainment, Sports, and Media	22
Healthcare Practitioners and Technical	58
Healthcare Support	159
Protective Service	95
Food Preparation and Serving Related	336
Building and Grounds Cleaning and Maintenance	277
Personal Care and Service	74
Sales and Related	352
Office and Administrative Support	605
Farming, Fishing, and Forestry	26
Construction and Extraction	704
Installation, Maintenance, and Repair	221
Production	1,472
Transportation and Material Moving	879
Military Specific	4
SOC INA	46
TOTAL	5,888

Claimants by Age





WIA XV

IV. Education Profile

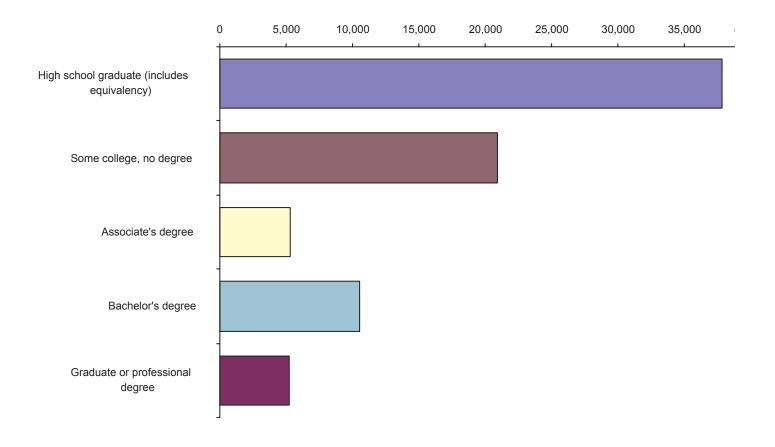
Education data describe the human capital embodied in the current labor force and provide insight into the education and training that will be required to fill the ranks of the future labor force. Some key features of the WIA XV's education and training environment are as follows:

- Educational attainment at the baccalaureate level and above is low relative to the statewide average.
- An assessment of the occupation-driven demand for local training needs indicates that between 1998 and 2008 the greatest demand for graduates from:
 - Post-secondary vocational programs will be in Administrative Assistant and Secretarial Science, Auto Mechanic/Technician, Cosmetologist, and Licensed Practical Nursing.
 - Associate's degree programs will be in Information Sciences and Systems, Management Information Systems and Business Data Processing, Paralegal, and Registered Nursing.
 - Baccalaureate degree programs will be in Accounting; Child Care and Guidance Workers/Managers; Computer and Information Sciences; Electrical, Electronics, and Computer Engineering; Elementary Teacher Education; General Education; General Finance; Human Resources Management; Information Sciences and Systems; Management Information Systems and Business Data Processing; Physical Education and Coaching; and Purchasing, Procurement, and Contracts Management.
 - Post-Baccalaureate degree programs will be in Law and Medicine
- An assessment of the occupation-driven demand for worker skills indicates that between 1998 and 2008 there will be a slight increase in required writing skills.





Education Level



Population 25 years and over	111,611
High school graduate (includes equivalency)	37,811
Some college, no degree	20,958
Associate's degree	5,308
Bachelor's degree	10,505
Graduate or professional degree	5,245

Source: 2000 Census.





Occupation-Driven Training Projection

In this section we use Virginia Employment Commission's (VEC's) occupational employment projections for the Richmond-Petersburg Metropolitan Statistical Area (MSA), in combination with a crosswalk developed by the National Crosswalk Service Center (NCSC) to "map" occupations into their prerequisite education and training programs.² Often these are many-to-many relationships where one occupation maps into several alternative education and training programs, and one program serves as a conduit into multiple occupations. The analysis is then further refined by using a classification scheme developed by the Bureau of Labor Statistics (BLS) to "sort" occupations according to the minimum degree or award typically required for employment in that occupation.³ Through this combination of steps, we are able to use VEC's occupational employment projections to predict the occupation-driven demand for specific education and training programs within the Richmond-Petersburg MSA.⁴ The method used to accomplish this task is not new and has been successfully employed in earlier studies conducted in several states, including Virginia.⁵

The table that follows depicts the annual occupationdriven demand for training needs in the Richmond-Petersburg MSA for the 1998 to 2008 period, as derived from this analysis. As these data show, the largest numbers of needed graduates are in auto repair (e.g., Auto/Automotive Mechanic / Technician), business (e.g., Accounting; Business Administration and Management; General Finance; Human Resource Management; Insurance Marketing Operations; Investment and Securities; Purchasing, Procurement, and Contracts Management), clerical (e.g., Administrative Assistant/Secretarial Science), computer technology (Business System Networking and Telecommunications, Computer Programming, Computer and Information Sciences, Information Sciences and Systems, Management Information Systems and Data Processing), education (e.g., Elementary Teacher Education, General Education, and Physical Education Teaching and Coaching), engineering (e.g., Civil Engineering, Electrical/Electronic and Communication Engineering, Engineering and Industrial Management), government (e.g., Public Administration), health (e.g., Medicine (MD), Registered Nurse, and Licensed Practical Nurse), law (e.g., Law (LLB, JD) and Paralegal/Legal Assistant), and services (e.g., Cosmetologist).

DCIPi = ∑Dcipji

Where,

Dcipji = (SOCj)(GCIPi/∑Gcipij)

and,

DCIPi = the annual demand for instructional program i

∑Dcipji = the annual demand for instructional program i across all occupation(s) j

SOCi = the projected annual openings for occupation i

GCIPi = Virginia graduates from instructional program i (for academic year 2000-01)

∑Gcipij = Virginia graduates from all instructional program(s) i (for academic year 2000-01) related to occupation j

¹ The Richmond-Petersburg Metropolitan Statistical Area is comprised of Charles City, Chesterfield, Dinwiddie, Goochland, Hanover, Henrico, New Kent, Powhatan, and Prince Georgr counties and the cities of Colonial Heights, Hopewell, Petersburg, and Richmond.

² The National Crosswalk Service Center (NCSC) is funded by the U.S. Department of Labor, Employment and Training Administration. This crosswalk identifies the prerequisite instructional programs necessary for employment in 651 specific occupations.

The Bureau of Labor Statistics classifies occupations according to eleven education and training categories. Four of these involve on-the-job training or work experience only and the remaining seven require some level of postsecondary education (i.e., first-professional degree, doctoral degree, master's degree, bachelor's degree, associate's degree, or postsecondary vocational training). For purposes of this study, we restrict the analysis to occupations that fall within these seven education and training categories.

⁴ More formally, the demand for education and training programs is calculated as:

⁵ Similar methods are used in at least seven states (California, Georgia, Idaho, Illinois, New Jersey, Utah, and Virginia) to project anticipated education and training demands. For an excellent exposition of this method see, William J. Drummond and Jan L Youtie, "Occupational Employment, Demand for College Graduates, and Migration: A Statewide View," a report to the Board of Regents, University System of Georgia, 1999. For an example of how this method has been used previously in Virginia see, A. Fletcher Mangum, "System-Wide Needs Assessment for Virginia Education," State Council of Higher Education for Virginia, March 28, 2002, p.90.





Annual Occupation-Driven Training Needs in the Richmond-Petersburg MSA, 1998 – 2008

Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree		Associate's Degree	Postsecondary Vocational Training	Total
Accounting					120			120
Actuarial Science					2			2
Adaptive Physical Education/ Therapeutic Recreation					1			1
Administrative Assistant / Secretarial Science, General							50	50
Advertising				1				1
Aeronautical and Aerospace Engineering Tech/Technician						1		1
Aerospace, Aeronautical and Astronautical Engineering					3			3
Agricultural Animal Husbandry and Production Management					1			1
Agricultural Business and Management, General				1				1
Agricultural Economics					1			1
Agricultural Supplies Retailing and Wholesaling					1			1
Agricultural Teacher Education (Voca- tional)					3			3
Animal Sciences, General				1				1
Applied Mathematics, General			2	2				2
Architectural Engineering					2			2
Architectural Environmental Design					3			3
Architectural Urban Design and Planning			1					1
Architecture					16			16
Art History, Criticism and Conservation			3	3				3
Art Teacher Education					13			13
Art, General				8				8
Arts Management				8				8
Audiology/Hearing Sciences			1					1
Auto / Automotive Mechanic / Technician							109	109
Automotive Engineering Tech / Technician							6	6





Education Profile

	First					Associate's		
Program	Professional	Degree	Degree	plus degree	Degree	Degree		Total
Barber/Hairstylist							6	
Basic Medical Sciences, Other		1						1
Bible/Biblical Studies					1			1
Bilingual/Bicultural Education					7			7
Biochemistry		1						1
Biology Teacher Education					2			2
Biology, General		8						8
Business Administration and Management, General				776	11			787
Business Computer Programming / Programmer					20			20
Business Information and Data Processing Services, Other					3			3
Business Machine Repairer							1	1
Business Marketing and Marketing Management				10				10
Business Quantitative Methods and Management Science, Other			3					3
Business Services Marketing Operations					1			1
Business Systems Analysis and Design					8			8
Business Systems Networking and Telecommunications					5	43		48
Business Teacher Education (Vocational)					3			3
Business / Managerial Economics					4			4
Cardiovascular Tech / Technician						9		9
Cartography					2			2
Chemical Engineering					11			11
Chemistry, General					18			18
Child Care and Guidance Workers and Managers, General					59			59
Child Care Provider / Assistant					23			23
Child Care Services Manager					6			6
Chiropractic (DC, DCM)	2							2
City/Urban, Community and Regional Planning			17					17
Civil Engineering, General					46			46







Program	First Professional	Master's		Bachelor's Degree	Associate's	Postsecondary Vocational Training	Total
Civil Engineering, other				1			1
Clinical Psychology		1					1
College/Postsecondary Student Counseling and Personnel		1					1
Commercial Photography						1	1
Communication Disorders, General		5					5
Communication Systems Installer and Repairer						22	22
Communications Technol. / Technicians, Other						2	2
Community Organization, Resources and Services			3				3
Computer and Information Sciences, General				189			189
Computer and Information Sciences, Other				10			10
Computer Engineering				33			33
Computer Engineering Tech / Technician					10		10
Computer Installer and Repairer						6	6
Computer Maintenance Tech/Technician						17	17
Computer Programming				46			46
Computer Science				3			3
Computer System Analysis				10			10
Computer Teacher Education				4			4
Conservation and Renewable Natural Resources, Other				1			1
Cosmetic Services, General						4	4
Cosmetologist						59	59
Counseling Psychology		1					1
Counselor Education Counseling and Guidance Services		29					29
Court Reporter						2	2
Dance						1	1
Data Processing Tech / Technician				3			3
Dental Clinical Services / Graduate Dentistry (MS, PhD)	1						1
Dental Hygienist					32		32





Education Profile

Program Dentistry (DDS, DMD) Design and Applied Arts, Other Design and Visual Communications Dietetics / Human Nutritional Services Divinity/Ministry (B.D., M.Div.) Drama and Dance Teacher Education Earth and Planetary Sciences Economics, General Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired	Jegree	Degree	plus degree	4 13 3		Training	Total 12
Design and Applied Arts, Other Design and Visual Communications Dietetics / Human Nutritional Services Divinity/Ministry (B.D., M.Div.) Drama and Dance Teacher Education Earth and Planetary Sciences Economics, General Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired				13			
Design and Visual Communications Dietetics / Human Nutritional Services Divinity/Ministry (B.D., M.Div.) Drama and Dance Teacher Education Earth and Planetary Sciences Economics, General Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired				13			4
Dietetics / Human Nutritional Services Divinity/Ministry (B.D., M.Div.) Drama and Dance Teacher Education Earth and Planetary Sciences Economics, General Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired						1	
Divinity/Ministry (B.D., M.Div.) Drama and Dance Teacher Education Earth and Planetary Sciences Economics, General Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired				3			13
Drama and Dance Teacher Education Earth and Planetary Sciences Economics, General Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired							3
Earth and Planetary Sciences Economics, General Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired							1
Economics, General Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired				1			1
Education Administration and Supervision, General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired				1			1
General Education Administration and Supervision, Other Education of the Deaf and Hearing Impaired				24			24
Other Education of the Deaf and Hearing Impaired			19				19
Impaired			2				2
				1			1
Education of the Emotionally Handicapped				1			1
Education of the Mentally Handicapped				1			1
Education of the Specific Learning Disabled				1			1
Education of the Speech Impaired				1			1
Education, General			38	248			286
Educational Supervision			1				1
Electrical and Electronic Engineering – Related Tech / Technician					12		12
Electrical and Electronics Equipment Installer and Repairer						10	10
Electrical, Electronic and Communications Engineering Tech / Technician					17		17
Electrical, Electronics and Communication Engineering				59			59
Electromechanical Tech / Technician					2		2
Elementary Teacher Education				133			133
Elementary, Middle and Secondary Education Administration			4				4
Emergency Medical Tech / Technician						20	20
Engineering / Industrial Management		i					
English Teacher Education			78	1			79







Program	First Professional	Doctoral Degree	Work Experience plus degree			Postsecondary Vocational Training	Total
Enterprise Management and Operation, General			7				7
Farm and Ranch Management			1				1
Fashion and Fabric Consultant				1			1
Fashion Design and Illustration				6			6
Fashion Merchandising			1				1
Film/Video and Photographic Arts, Other						1	1
Finance, General			102	135			237
Financial Management and Services, Other			2				2
Financial Planning				20			20
Financial Services Marketing Operations				7			7
Fine Arts and Art Studies, Other			1				1
Fine/Studio Arts			4				4
Floristry Marketing Operations				2			2
Food and Nutrition Science				2			2
Foods and Nutrition Studies, General				5			5
Foreign Languages Teacher Education				3			3
Forestry, General				2			2
Funeral Services and Mortuary Science					4		4
General Buying Operations				7			7
General Retailing Operations				12			12
Geological and Related Sciences, Other				1			1
Geology				4			4
Graphic Design, Commercial Art and Illustration			11				11
Health and Medical Administrative Services, Other			1				1
Health and Physical Education, General				7			7
Health and Physical Education/Fitness, Other				1			1
Health System/Health Services Administration			1				1
Health Teacher Education				9			9
Higher Education Administration			1				1





Program	First Professional	Doctoral Degree		Work Experience plus degree	Bachelor's Degree	Associate's	Postsecondary Vocational Training	Total
History Teacher Education					2			2
Home Economics Teacher Education (Vocational)					1			1
Home Furnishings and Equipment Installers and Consultants, General					1			1
Human Resources Management				18	97			115
Human Resources Management, Other					10			10
Industrial Design					3			3
Industrial Electronics Installer and Repairer							1	1
Industrial/Manufacturing Engineering					5			5
Information Sciences and Systems					102	55		157
Instrumentation Tech / Technician						1		1
Insurance and Risk Management					16			16
Insurance Marketing Operations					62			62
Interior Architecture					2			2
Interior Design					6			6
International Business				21				21
Investments and Securities				3	60			63
Junior High / Intermediate / Middle School Teacher Education					8			8
Juridical Science / Legal Specialization (LLM, MCL, JSD)	5							5
Labor/Personnel Relations and Studies				4	13			17
Landscape Architecture					1			1
Law (LLB, JD)	84							84
Law and Legal Studies, Other	6							6
Legal Administrative Assistant / Secretary							4	4
Library Science, Other			1					1
Library Science / Librarianship			27					27
Logistics and Materials Management				1				1
Make-Up Artist							4	4
Management Information Systems and Business Data Processing					84	86		170
Management Science			8					8
Material Engineering					1			1







Day awaya							Postsecondary Vocational	Total
Program Mathematics	Professional	Degree	Degree 3		Degree	Degree	Training	3
Mathematics Teacher Education			3		13			13
					32			32
Mechanical Engineering Medical Administrative Assistant / Secre-					32			32
tary							6	6
Medical Office Management							2	2
Medical Pharmacology and Pharmaceutical Sciences	2							2
Medical Records Tech / Technician						17		17
Medical Transcription							13	13
Medicine (MD)	87							87
Metal and Jewelry Arts				2				2
Microbiology/ Bacteriology		1						1
Music Teacher Education					23			23
Natural Resources Conservation, General					3			3
Natural Resources Management and Policy					1			1
Natural Resources Management and Protective Services, Other					1			1
Nuclear Engineering					1			1
Nuclear Medical Tech / Technician						1		1
Nursing (R.N. Training)						275		275
Nursing Anesthetics (Post-R.N.)						2		2
Nursing Science (Post-R.N.)						13		13
Nursing, Adult Health (Post-R.N.)						1		1
Nursing, Family Practice (Post-R.N.)						4		4
Nursing, Maternal/Child Health (Post-R.N.)						1		1
Nursing, Other						41		41
Nursing, Public Health (Post-R.N.)						1		1
Nursing, Surgical (Post-R.N.)						1		1
Occupational Therapy					12			12
Occupational Therapy Assistant						5		5
Oceanography					1			1
Operations Research			1					1





Program	First Professional		Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's		Total
Optometry (O.D.)	2							2
Organizational Behavior Studies					25			25
Osteopathic Medicine (D.O.)	14							14
Painting				1				1
Paralegal/Legal Assistant						59		59
Parks, Recreation and Leisure Facilities Management					3			3
Parks, Recreation and Leisure Studies					3			3
Parks, Recreation, Leisure and Fitness Studies, other					1			1
Pharmacy (B. Pharm., Pharm D.)	24							24
Pharmacy, other	1							1
Photography							3	3
Physical Education Teaching and Coach- ing					51			51
Physical Therapy			25					25
Physical Therapy Assistant						16		16
Physician Assistant					20			20
Physics, General		1						1
Practical Nurse (LPN Training)							142	142
Psychiatric / Mental Health Services Technician							5	5
Psychology, General			10					10
Psychology, Other			1					1
Public Administration				52				52
Public Administration and Services, Other				2				2
Public Health, General				1				1
Public Policy Analysis				1				1
Public Relations and Organizational Communications				1	24			25
Purchasing, Procurement and Contracts Management					53			53
Radio and Television Broadcasting Tech / Technician							2	2
Reading Teacher Education					30			30







Program	First Professional	Doctoral Degree		Work Experience plus degree	Bachelor's Degree	Associate's	Postsecondary Vocational Training	Total
Real Estate					33		18	51
Recreational Therapy					1			1
Religious Education					1			1
Respiratory Therapy Technician						19		19
Robotics Tech / Technician						1		1
School Psychology			3					3
Science Teacher Education, General					6			6
Secondary Teacher Education					33			33
Social Science Teacher Education					3			3
Social Studies Teacher Education					8			8
Spanish Language Teacher Education					2			2
Special Education, General					23			23
Special Education, Other					2			2
Speech-Language Pathology			4					4
Speech-Language Pathology and Audiology			11					11
Sport and Fitness Administration/Management					3			3
Surgical / Operating Room Technician							10	10
Surveying					5			5
Taxation					7			7
Teacher Education, Specific Academic and Vocational Programs					14			14
Technical Teacher Education (Vocational)					4			4
Technical Theater/Theater Design and Stagecraft					1			1
Technology Teacher Education / Industrial Arts Teacher Ed					5			5
Theology/Theological Studies	1							1
Trade and Industrial Teacher Education (Vocational)					5			5
Travel Services Marketing Operations							18	18
Veterinarian Assistant / Animal Health Technician						5		5
Veterinary Clinical Sciences (MS, PhD)	1							1





Program	First Professional		Master's	•		Associate's Degree		Total
Veterinary Medicine (DVM)	7							7
Vocational Rehabilitation Counseling			2					2
Totals	250	12	160	1189	2357	734	545	5247



Work Skills Projection

In this section we use the VEC's occupational employment projections for the Richmond MSA, in combination with occupational skills profiles developed by ACT,¹ to identify the skill sets that will be required to fill projected annual job openings within the region. The skills categories addressed in this analysis are Applied Mathematics, Applied Technology, Listening, Locating Information, Observation, Reading for Information, Teamwork, and Writing. A description of each category, the skills Levels associated with it, and the proportion of projected annual job openings that fall within each skill Level follow.

Applied Mathematics

The *Applied Mathematics* assessment measures a person's skill in using mathematical reasoning to solve work-related problems. ACT defines the skills Levels associated with this category as follows.

Level 3:

- Perform basic mathematical operations using whole numbers and decimals.
- Convert a number from one form into another using whole numbers, fractions, decimals, or percentages.
- Solve problems that are straightforward, involving a single type of mathematical operation.
- Translate easily from a verbal setup to a mathematical equation when all the information needed to solve the problem is provided in logical order and no unrelated information is included.

Level 4 (in addition to requirements for previous Levels):

- Perform one or two mathematical operations using several positive or negative numbers.
- Add commonly known fractions, decimals, or percentages, or add three fractions that share a common denominator.
- Calculate averages, simple ratios, proportions, and rates, using whole numbers and decimals.

- Reorder verbal information before performing calculations.
- Determine which operations to perform and in what order.
- Read a simple chart or graph to obtain the information needed to solve a problem.

Level 5 (in addition to requirements for previous Levels):

- Look up and calculate single-step conversions within English or non-English systems of measurement or between systems of measurement.
- Calculate using mixed units and several steps of logic.
- Calculate perimeters and areas of basic shapes.
- Calculate percentage discounts and markups.
- Determine what information, calculations, and unit conversions are needed to find a solution.

Level 6 (in addition to requirements for previous Levels):

- Calculate using negative numbers, fractions, ratios, percentages, and mixed numbers.
- Calculate multiple rates for comparison or use in other calculations.
- Find basic areas and volumes of rectangular solids.
- Identify and correct errors in calculations.
- Solve problems involving considerable setup and multiple-step calculations or conversions.

Level 7 (in addition to requirements for previous Levels):

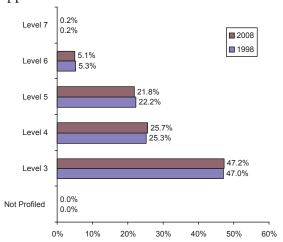
- Calculate using multiple steps of logic.
- Calculate multiple areas and the volumes of spheres, cylinders, and cones.
- Solve problems with more than one unknown.
- Solve problems involving nonlinear functions, such as rates of change.

¹ The occupational skills profiles used in this analysis were provided by ACT. ACT is an independent, non-profit organization that specializes in research and assessment related to education and work. These profiles are based on actual ACT *WorkKeys* assessments of thousands of employed individuals nationally. They represent the most comprehensive and current measure of the work skills required for specific occupations.

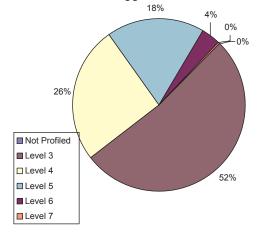


- Calculate by applying basic statistical concepts.
- Derive information needed to solve problems if incomplete or implicit information is presented.

The following figure details the percentage of overall jobs in the Richmond MSA in 1998 and 2008 by required *Applied Mathematics* skills Level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 Applied Mathematics skills.



Proportion of Jobs in the Richmond MSA by Required Skill Level – Applied Mathematics



Annual Openings in the Richmond MSA by Required Skill Level – Applied Mathematics

Applied Technology

The Applied Technology assessment measures a person's skill in using the basic principles of mechanics, electricity, fluid dynamics, and thermodynamics to solve

problems with machines, equipment, and structures found in the workplace. ACT defines the skills Levels associated with this category as follows.

Level 3:

- Understand the operation of basic hand tools, simple machine components, and uncomplicated systems, such as piping systems, simple electrical heaters, or other equipment found in the home, school, or workplace.
- Apply elementary principles underlying the operation of physical systems, such as the workings of plumbing components or simple electrical systems.

Level 4 (in addition to requirements for previous Levels):

- Understand the operation of moderately complex tools, machines, and systems, such as appliances, pulley-driven equipment, or piping systems that carry more than one fluid.
- Apply elementary principles underlying the operation of physical systems, such as a block and tackle or cooling fins.

Level 5 (in addition to requirements for previous Levels):

- Use the basic principles of mechanics, electricity, thermodynamics, and fluid dynamics in moderate and advanced applications.
- Understand complex machines and systems, such as the operation of gasoline engines, complex appliances, or an electrical system in a building.

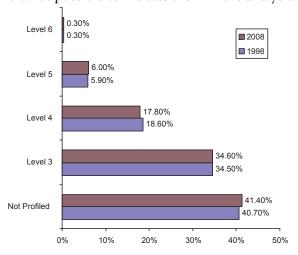
Level 6 (in addition to requirements for previous Levels):

- Use principles of mechanics, electricity, thermodynamics, and fluid dynamics interacting in advanced applications such as air conditioning units.
- Troubleshoot complex systems in which a variety of mechanical, electrical, thermal, or flow faults are potential sources of difficult problems.

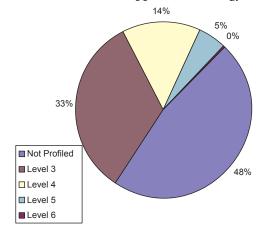
The following figure details the percentage of overall jobs in the Richmond MSA in 1998 and 2008 by required *Applied Technology* skills Level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings



between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 Applied Technology skills. The large "Not Profiled" proportion indicates that ACT has not profiled many of these occupations with respect to Applied Technology skills. As a result, it is not possible to include them in the analysis.



Proportion of Jobs in the Richmond MSA by Required Skill Level – Applied Technology



Annual Openings in the Richmond MSA by Required Skill Level – Applied Technology

Listening

The *Listening* portion of the Listening and Writing assessment measures a person's skill in listening to and conveying information. ACT defines the skills Levels associated with this category as follows.

Level 1:

 Write down a small amount of useful information based on a spoken communication. Give clues to the gist of the situation or provide sources of further information, but do not include enough information to give the receiver a correct understanding of the situation described in the message.

Level 2 (in addition to requirements for previous Levels):

- Correctly write down the basic ideas of a spoken message.
- Give a fair amount of useful information, but may miss some of the important details or incorrectly record some of the information.

Level 3 (in addition to requirements for previous Levels):

- Listen to a spoken communication and record messages that are basically correct.
- Present all the primary details and the relationships among them correctly, but may miss one or two pieces of important information.

Level 4 (in addition to requirements for previous Levels):

- Accurately convey the central idea of a spoken communication.
- Correctly record all the important information and the relationships among pieces of information, but may miss or incorrectly record some details or include irrelevant information.

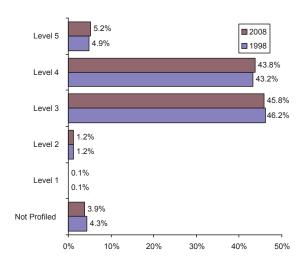
Level 5 (in addition to requirements for previous Levels):

- Correctly record all the important information and the relationships among pieces of information from a spoken communication.
- Use supporting details to convey insight into the particular situation the message involves.

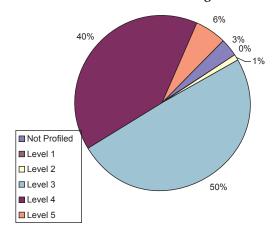
The following figure details the percentage of overall jobs in the Richmond MSA in 1998 and 2008 by required *Listening* skills Level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 and Level 4 *Listening* skills.



Education Profile



Proportion of Jobs in the Richmond MSA by Required Skill Level – Listening



Annual Openings in the Richmond MSA by Required Skill Level – Listening

Locating Information

The *Locating Information* assessment measures a person's skill in using workplace graphics such as diagrams, floor plans, tables, charts, graphs, forms, and instrument gauges. ACT defines the skills Levels associated with this category as follows.

Level 3:

- Find one or two pieces of information in a graphic.
- Fill in one or two pieces of information that are missing from a graphic.

Level 4 (in addition to requirements for previous Levels):

• Find several pieces of information in graphics.

- Summarize and/or compare information and trends in a single graphic.
- Summarize and/or compare information and trends among more than one graphic by determining the relationships among the graphics.

Level 5 (in addition to requirements for previous Levels):

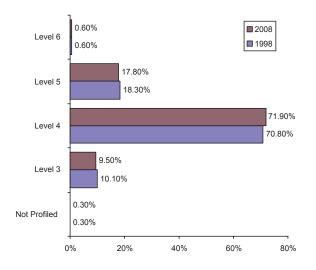
- Summarize and/or compare information and trends in a single graphic.
- Sort through distracting information to summarize and/or compare information and trends presented in more than one workplace graphic.

Level 6 (in addition to requirements for previous Levels):

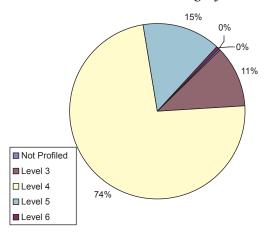
- Draw conclusions from the information presented in very detailed graphics.
- Apply information from these types of graphics to specific situations.
- Analyze data within these types of graphics to make decisions and/or predictions requiring judgments based on the information presented.

The following figure details the percentage of overall jobs in the Richmond MSA in 1998 and 2008 by required *Locating Information* skills Level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the vast majority of jobs will require workers with Level 4 *Locating Information* skills.





Proportion of Jobs in the Richmond MSA by Required Skill Level – Locating Information



Annual Openings in the Richmond MSA by Required Skill Level – Locating Information

Observation

The *Observation* assessment measures a person's skill at noticing details and paying attention to instructions and demonstrations. The following is a description of the skills Levels associated with this area.

Level 3:

- Pay attention.
- Watch and listen to a strongly cued demonstration or set of instructions.
- Recall a few strongly reinforced details of a process or procedure.

Level 4:

- Sustain focused attention on the demonstrated instructions, process, or procedures.
- Select and attend to important details.
- Recall a few important, moderately reinforced details about the demonstrated process or procedure.

Level 5:

- Focus attention on and recall several important aspects of the information presented.
- Ignore irrelevant background information through selective attention to important details.
- Maintain attention to detail.
- Recall several important details about unfamiliar material.

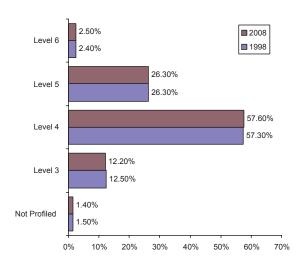
Level 6:

- Notice and remember several details that are relevant to the process or procedure being shown.
- Take in and recall incoming sensory information so it can be used to make predictions, comparisons, or evaluations.
- Visualize how a detail or task fits into the entire process or procedure demonstrated.
- Interpret if-then and cause-effect relationships.

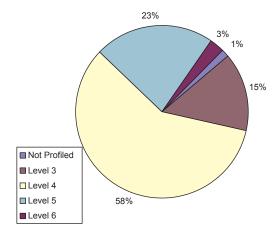
The following figure details the percentage of overall jobs in the Richmond MSA in 1998 and 2008 by required *Observation* skills Level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Observation* skills.



Education Profile



Proportion of Jobs in the Richmond MSA by Required Skill Level – Observation



Annual Openings in the Richmond MSA by Required Skill Level – Observation

Reading for Information

The *Reading for Information* assessment measures a person's skill in reading and using work-related information including instructions, policies, memos, bulletins, notices, letters, manuals, and governmental regulations. ACT defines the skills Levels associated with this category as follows.

Level 3:

- Identify uncomplicated key concepts and simple details.
- Recognize the proper placement of a step in a sequence of events, or the proper time to perform a task.
- Identify the meaning of a word that is defined within the document.

- Identify the meaning of a simple word that is not defined within the document.
- Recognize the application of instructions given in the document to situations that are also described in the document.

Level 4:

- Identify important details that are less obvious than those in Level 3.
- Recognize the application of more complex instructions, some of which involve several steps, to described situations.
- Recognize cause-effect relationships.
- Determine the meaning of words that are not defined in the document.

Level 5:

- Identify the paraphrased definition of a technical term or jargon that is defined in the document.
- Recognize the application of technical terms or jargon to stated situations.
- Recognize the definition of an acronym that is defined in the document.
- Identify the appropriate definition of a word with multiple meanings.
- Recognize the application of instructions from the document to new situations that are similar to those described in the document.
- Recognize the application of more complex instructions to described situations, including conditionals and procedures with multiple steps.

Level 6:

- Recognize the application of jargon or technical terms to new situations.
- Recognize the application of complex instructions to new situations.
- Recognize, from context, the less common meaning of a word with multiple meanings.
- Generalize from the document situations not described in the document.
- Identify implied details.

41



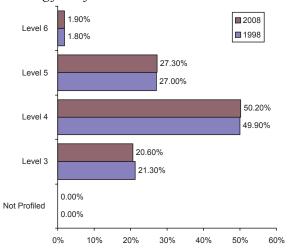


- Explain the rationale behind a procedure, policy, or communication.
- Generalize from the document to a somewhat similar situation.

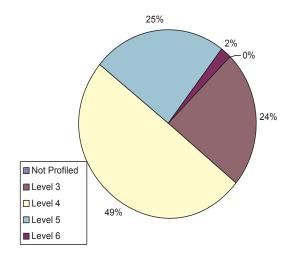
Level 7:

- Recognize the definitions of difficult, uncommon jargon or technical terms, based on the context of the reading materials.
- Figure out the general principles underlying described situations and apply them to situations neither described in nor completely similar to those in the document.

The following figure details the percentage of overall jobs in the Richmond MSA in 1998 and 2008 by required *Reading for Information* skills Level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Reading for Information* skills.



Proportion of Jobs in the Richmond MSA by Required Skill Level – Reading for Information



Annual Openings in the Richmond MSA by Required Skill Level – Reading for Information

Teamwork

The *Teamwork* assessment measures a person's skill in choosing behaviors and/or actions that simultaneously support relationships within a team and lead toward the accomplishment of work tasks. The following is a description of the skills Levels associated with this area.

Level 3:

- Identify team goals and ways to work with other team members to accomplish team goals.
- Recognize that a team is having problems finishing a task and identify the cause of those problems.
- Choose actions that actively support the ideas other team members have for accomplishing team goals.
- Recognize the need for trust and dependability in a team environment.

Level 4:

- Identify the organization of tasks and the time schedule that would help the team reach goals efficiently, creatively, and effectively.
- Select approaches that accept direction from other team members in order to complete tasks and to build and keep up good team relations.
- Identify behaviors that show appreciation for the personal and professional qualities of other team members and respect for their diversity.



 Recognize the need for commitment to quality and sensitivity to customers while pursuing the team goal.

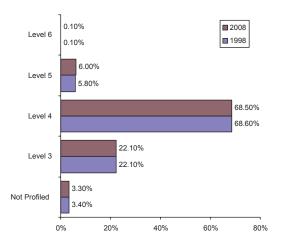
Level 5:

- Identify courses of action that give direction to other team members.
- Determine the best use of team talents to accomplish goals.
- Choose approaches that encourage other team members to improve relationships and/or complete tasks.
- Consider and evaluate the possible effects of alternative behaviors on both team relationships and the completion of tasks.

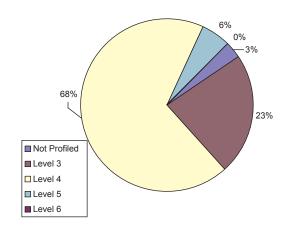
Level 6:

- Identify the focus of team activity and select a new focus if that would help the team meet its goals more effectively.
- Select approaches that show a willingness to give and take direction, as needed, to further team goals (e.g., recognize the organization of team members' tasks that would best serve the larger goals of the team).
- Choose approaches that encourage a team to act as a unit and reach agreement when discussing specific issues.
- Identify actions that would help manage differences of opinion between team members, moving the team toward its goals while valuing and supporting individual diversity.

The following figure details the percentage of overall jobs in the Richmond MSA in 1998 and 2008 by required *Teamwork* skills Level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Teamwork* skills.



Proportion of Jobs in the Richmond MSA by Required Skill Level – Teamwork



Annual Openings in the Richmond MSA by Required Skill Level – Teamwork

Writing

The *Writing* portion of the Listening and Writing assessment measures a person's skill in writing work-related messages. ACT defines the skills Levels associated with this category as follows.

Level 1:

 Write messages in English that contain a large number of major grammatical, punctuation, spelling, and/or other mechanical errors making the messages very unclear and inconsistent with standard business English.

Level 2:

 Write messages that are generally understandable, but contain many errors in grammar, punctuation,





and/or sentence structure making these messages somewhat difficult to comprehend.

Level 3:

 Write messages that are clear, but may include some incomplete sentences and/or errors in grammar and punctuation.

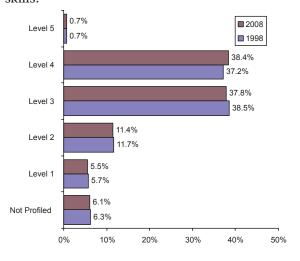
Level 4:

 Write messages that are clear and generally consistent with standard business English, but may contain a few minor errors in grammar and punctuation, and/or the writing style may lack clear organization and appropriate transitions.

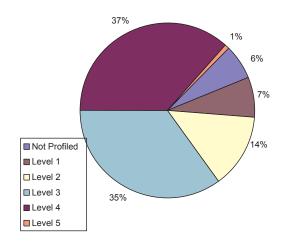
Level 5:

- Write messages that are clear and highly consistent with standard business English.
- Use good sentence structure with a smooth, logical style and no mechanical errors.

The following figure details the percentage of overall jobs in the Richmond MSA in 1998 and 2008 by required *Writing* skills Level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 and Level 4 *Writing* skills.



Proportion of Jobs in the Richmond MSA by Required Skill Level – Writing



Annual Openings in the Richmond MSA by Required Skill Level – Writing





Graduate Data

As a compliment to the prior two sections which detailed the likely demand for skilled workers in the region, this section provides data on the current supply of graduates within WIA XV. These data reflect number of graduates, by institution, and by academic program for the 2002-2003 academic year.1

Institution	Program (CIP Code)		Cert. >1 <2 yr.	Assoc.	ВА	1st Prof.	MA	PH.D.
Richard Bland College	Liberal Arts and Sciences/Liberal Studies (24.0101)	0	0	23	0	0	0	0
Richard Bland College	Physical Sciences, General (40.0101)	0	0	173	0	0	0	0
Richard Bland College	Business Administration and Management, General (52.0201)	0	0	9	0	0	0	0
Virginia State Univ	Agriculture/Agricultural Sciences, General (02.0101)	0	0	0	5	0	0	0
Virginia State Univ	Mass Communications (09.0403)	0	0	0	23	0	0	0
Virginia State Univ	Computer Science (11.0701)	0	0	0	6	0	0	0
Virginia State Univ	Curriculum and Instruction (13.0301)	0	0	0	0	0	19	0
Virginia State Univ	Education Administration and Supervision, General (13.0401)	0	0	0	0	0	25	0
Virginia State Univ	Counselor Education Counseling and Guidance Services (13.1101)	0	0	0	0	0	25	0
Virginia State Univ	Trade and Industrial Teacher Education (Vocational) (13.1320)	0	0	0	13	0	14	0
Virginia State Univ	Business Teacher Education (Vocational) (13.1303)	0	0	0	5	0	0	0
Virginia State Univ	Physical Education Teaching and Coaching (13.1314)	0	0	0	59	0	0	0
Virginia State Univ	Engineering-Related Technol./Technicians, Other (15.9999)	0	0	0	13	0	0	0
Virginia State Univ	Family/Consumer Resource Management, Other (19.0499)	0	0	0	9	0	0	0
Virginia State Univ	English Language and Literature, General (23.0101)	0	0	0	28	0	4	0
Virginia State Univ	Liberal Arts and Sciences/Liberal Studies (24.0101)	0	0	0	39	0	0	0
Virginia State Univ	Biology, General (26.0101)	0	0	0	31	0	6	0
Virginia State Univ	Mathematics (27.0101)	0	0	0	14	0	5	0
Virginia State Univ	Multi/Interdisciplinary Studies, Other (30.9999)	0	0	0	62	0	0	0
Virginia State Univ	Chemistry, General (40.0501)	0	0	0	3	0	0	0

¹ Source: State Council of Higher Education for Virginia, Research Report C1, Completion Summary. Where data for 2002-2003 were not available, 2001-2002 data have been used.







Institution	Program (CIP Code)		Cert. >1 <2 yr.	Assoc.	ВА	1st Prof.	MA	PH.D.
Virginia State Univ	Physics, General (40.0801)	0	0	0	2	0	0	0
Virginia State Univ	Psychology, General (42.0101)	0	0	0	33	0	15	0
Virginia State Univ	Criminal Justice Studies (43.0104)	0	0	0	10	0	0	0
Virginia State Univ	Public Administration (44.0401)	0	0	0	24	0	0	0
Virginia State Univ	History, General (45.0801)	0	0	0	6	0	2	0
Virginia State Univ	Political Science, General (45.1001)	0	0	0	24	0	0	0
Virginia State Univ	Sociology (45.1101)	0	0	0	57	0	0	0
Virginia State Univ	Visual and Performing Arts (50.0101)	0	0	0	11	0	0	0
Virginia State Univ	Music - General Performance (50.0903)	0	0	0	8	0	0	0
Virginia State Univ	Business Marketing and Marketing Manage- ment (52.1401)	0	0	0	38	0	0	0
Virginia State Univ	Management Information Systems and Business Data Processing, General (52.1201)	0	0	0	47	0	0	0
Virginia State Univ	Business Administration and Management, General (52.0201)	0	0	0	31	0	0	0
Virginia State Univ	Business/Managerial Economics (52.0601)	0	0	0	11	0	5	0
Virginia State Univ	Hospitality/Administration Management (52.0901)	0	0	0	4	. 0	0	0
Virginia State Univ	Hotel/Motel and Restaurant Management (52.0902)	0	0	0	1	0	0	0
Virginia State Univ	Accounting (52.0301)	0	0	0	25	0	0	0





WIA XV Training Providers List

Provider Name	Contact Information	List of Programs/Courses
Advance Nail Technology School	134 East Wythe Street Petersburg VA 23803 Phone: 804-862-4598	Nail Technology
Colonial Heights Beauty Academy	P. O. Box 636 1851 Southpark Boulevard Colonial Heights VA 23834 Phone: 804-526-6363 Email: colheights@earthlink.net	Cosmetology
ETS Training Center	1322 Wills Road Blackstone VA 23824 Phone: 804-292-4134 Email: estax@hovac.com	Computerized Accounting Course
Hair Horizons Too Beauty Academy	116 S. Sycamore Street Petersburg VA 23803-3238 Phone: 804-732-7053	Cosmetology
HealthCare Solutions	116 South Adams Street Petersburg VA 23803 Phone: 804-732-7625 Email: kbrandveen@aol.com	Nursing Assistant
Jazz Barber and Hairstyling Academy	1011 Amelia Street,Suite B Petersburg VA 23803 Phone: 804-732-3040	Barber Cosmetology Nail Technician
Personal Touch Home Care Services Inc	PO Box 305 13083 Flatfood Road Stony Creek VA 23882 Phone: 804-246-3110 Email: ptouch@Gateway.net	Nurses Aide
Petersburg Public School - Career and Technical Education	3101 Johnson Road Petersburg VA 23805 Phone: 804-862-7022	Practical Nursing
Richard Bland College	11301 Johnson Road Petersburg VA 23842 Phone: 804-732-7053 Web: www.rbc.edu	Associate Degree Programs
Rowanty Technical Center	20000 Rowanty Road Carson VA 23803 Phone: 804-732-4950 Email: RTC@tech.com Web: www.rowanty.com	Practical Nursing (LPN) Stream Programs (Construction)
The US Truck Drive Training Program	21404 Deodora Drive Petersburg VA 23803 Phone: 804-402-1111 Email: jbogue@jt.cc.va.us	Tractor Trailer Truck Driver
Virginia State University	1 Hayden Drive Petersburg VA 23806-0001 Phone: 804-524-6754 Email: ajoyner@vsu.edu Web: www.vsu.edu	Quantity Food Production, Planning and Management







V. Summary and Conclusion

Population trends in WIA XV, as in other parts of the United States, are currently dominated by the aging of the baby-boom generation. Between 2000 and 2010 this demographic phenomena will cause a major increase in the 55 and over population within the region. The net result of this increase will be a significant "graying" of the overall population.

One implication of this is that younger entry-level workers will be in short supply. This should elevate the importance of workforce services in facilitating the efficient and effective use of existing labor resources by getting younger trained workers into the workforce, and retraining or upgrading the skills of older displaced workers.

Another significant trend within WIA XV has to do with declining employment in Government and Manufacturing, coupled with increasing employment in Services (especially technology, health care, and education) and Retail Trade. It can be anticipated that employment increases in the Service sector – specifically, health care and education – will drive much of the demand for trained workers between 1998 and 2008.





Dinwiddie County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	574
AGRICULTURE	340
MINING	D
UTILITIES	D
CONSTRUCTION	547
MANUFACTURING	754
TRADE-WHOLESALE	477
TRADE-RETAIL	325
TRANSPORTATION	640
INFORMATION	D
FINANCE/INSURNC	512
REAL ESTATE	D
PROF/TECH SERV	675
MANAGMNT OF COS	D
ADMIN/WASTE SER	445
EDUCATIONAL SER	D
HEALTH CARE	298
ARTS/ENTER/REC	315
ACCOMMDATN/FOOD	187
OTHER SERVICES	510
GOVT TOTAL	544
GOVT FEDERAL	638
GOVT STATE	568
GOVT LOCAL	476
UNCLASSIFIED	0

Greensville County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	553
AGRICULTURE	339
MINING	D
UTILITIES	D
CONSTRUCTION	392
MANUFACTURING	628
TRADE-WHOLESALE	552
TRADE-RETAIL	300
TRANSPORTATION	544
INFORMATION	1,040
FINANCE/INSURNC	319
REAL ESTATE	D
PROF/TECH SERV	373
MANAGMNT OF COS	D
ADMIN/WASTE SER	D
EDUCATIONAL SER	D
HEALTH CARE	599
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	193
OTHER SERVICES	420
GOVT TOTAL	551
GOVT FEDERAL	538
GOVT STATE	598
GOVT LOCAL	487
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Prince George County

Surry County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	618
AGRICULTURE	581
MINING	D
UTILITIES	D
CONSTRUCTION	590
MANUFACTURING	584
TRADE-WHOLESALE	592
TRADE-RETAIL	307
TRANSPORTATION	607
INFORMATION	D
FINANCE/INSURNC	538
REAL ESTATE	364
PROF/TECH SERV	1,030
MANAGMNT OF COS	D
ADMIN/WASTE SER	314
EDUCATIONAL SER	D
HEALTH CARE	333
ARTS/ENTER/REC	255
ACCOMMDATN/FOOD	209
OTHER SERVICES	474
GOVT TOTAL	828
GOVT FEDERAL	942
GOVT STATE	719
GOVT LOCAL	523
UNCLASSIFIED	0

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	938
AGRICULTURE	418
MINING	D
UTILITIES	D
CONSTRUCTION	832
MANUFACTURING	399
TRADE-WHOLESALE	438
TRADE-RETAIL	291
TRANSPORTATION	407
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	D
PROF/TECH SERV	851
MANAGMNT OF COS	D
ADMIN/WASTE SER	1,022
EDUCATIONAL SER	D
HEALTH CARE	D
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	D
OTHER SERVICES	244
GOVT TOTAL	516
GOVT FEDERAL	549
GOVT STATE	423
GOVT LOCAL	526
UNCLASSIFIED	0





Sussex County

INDUSTRY SECTOR 2002 (\$) ****TOTAL**** 487 **AGRICULTURE** 525 MINING D UTILITIES D CONSTRUCTION 459 **MANUFACTURING** 552 TRADE-WHOLESALE 473 TRADE-RETAIL 340 474 **TRANSPORTATION INFORMATION** D FINANCE/INSURNC D REAL ESTATE 348 PROF/TECH SERV 608 MANAGMNT OF COS D ADMIN/WASTE SER 631 **EDUCATIONAL SER** D **HEALTH CARE** 444 ARTS/ENTER/REC D ACCOMMDATN/FOOD 227 OTHER SERVICES 286 **GOVT TOTAL** 605 **GOVT FEDERAL** 906 **GOVT STATE** 584 **GOVT LOCAL** 600 **UNCLASSIFIED** 0

Colonial Heights city

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	405
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	519
MANUFACTURING	748
TRADE-WHOLESALE	1,075
TRADE-RETAIL	307
TRANSPORTATION	520
INFORMATION	D
FINANCE/INSURNC	715
REAL ESTATE	393
PROF/TECH SERV	625
MANAGMNT OF COS	D
ADMIN/WASTE SER	400
EDUCATIONAL SER	133
HEALTH CARE	505
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	217
OTHER SERVICES	426
GOVT TOTAL	645
GOVT FEDERAL	911
GOVT STATE	554
GOVT LOCAL	624
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Emporia city

INDUSTRY SECTOR 2002 (\$) ****TOTAL**** 399 **AGRICULTURE** D MINING D UTILITIES D CONSTRUCTION 400 **MANUFACTURING** 492 TRADE-WHOLESALE 564 TRADE-RETAIL 282 **TRANSPORTATION** D **INFORMATION** D FINANCE/INSURNC 455 **REAL ESTATE** 333 PROF/TECH SERV 446 MANAGMNT OF COS D ADMIN/WASTE SER D **EDUCATIONAL SER** D **HEALTH CARE** 544 ARTS/ENTER/REC D ACCOMMDATN/FOOD 195 OTHER SERVICES 196 **GOVT TOTAL** 577 **GOVT FEDERAL** 729 **GOVT STATE** 576 **GOVT LOCAL** 540 **UNCLASSIFIED** 0

Hopewell city

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	712
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	673
MANUFACTURING	1,171
TRADE-WHOLESALE	968
TRADE-RETAIL	357
TRANSPORTATION	858
INFORMATION	461
FINANCE/INSURNC	632
REAL ESTATE	594
PROF/TECH SERV	796
MANAGMNT OF COS	D
ADMIN/WASTE SER	496
EDUCATIONAL SER	716
HEALTH CARE	615
ARTS/ENTER/REC	162
ACCOMMDATN/FOOD	198
OTHER SERVICES	452
GOVT TOTAL	591
GOVT FEDERAL	887
GOVT STATE	716
GOVT LOCAL	576
UNCLASSIFIED	0





Petersburg city

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	566
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	575
MANUFACTURING	785
TRADE-WHOLESALE	640
TRADE-RETAIL	395
TRANSPORTATION	623
INFORMATION	636
FINANCE/INSURNC	582
REAL ESTATE	356
PROF/TECH SERV	783
MANAGMNT OF COS	D
ADMIN/WASTE SER	414
EDUCATIONAL SER	496
HEALTH CARE	546
ARTS/ENTER/REC	170
ACCOMMDATN/FOOD	236
OTHER SERVICES	405
GOVT TOTAL	618
GOVT FEDERAL	843
GOVT STATE	678
GOVT LOCAL	586
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Unemployment Rate Trends

Dinwiddie County

Year	Rate
2002	3.9
2001	3.1
2000	2.0
1999	2.5
1998	2.6

Year	Rate
1997	3.9
1996	4.0
1995	4.5
1994	6.0
1993	6.5

Greensville County

Year	Rate
2002	3.2
2001	3.6
2000	2.5
1999	3.0
1998	3.7

Year	Rate
1997	4.4
1996	5.1
1995	6.2
1994	5.7
1993	6.3

Prince George County

Year	Rate
2002	3.4
2001	2.9
2000	1.9
1999	2.9
1998	3.1

Year	Rate
1997	3.2
1996	3.6
1995	3.9
1994	4.4
1993	4.3

Surry County

Year	Rate
2002	6.1
2001	5.3
2000	5.5
1999	7.8
1998	7.9

Year	Rate
1997	8.9
1996	10.3
1995	9.4
1994	11.9
1993	11.1

Sussex County

Year	Rate
2002	4.6
2001	4.0
2000	2.8
1999	3.0
1998	4.0

Year	Rate
1997	5.6
1996	7.5
1995	6.2
1994	7.5
1993	8.2

Colonial Heights city

Year	Rate
2002	4.3
2001	3.4
2000	2.3
1999	2.5
1998	2.8

Year	Rate
1997	4.0
1996	4.1
1995	4.4
1994	4.8
1993	5.4

Emporia city

Year	Rate
2002	4.6
2001	4.5
2000	3.3
1999	4.7
1998	4.2

Rate
6.3
6.3
7.7
7.1
8.4

Hopewell city

Year	Rate
2002	6.6
2001	5.6
2000	3.1
1999	4.2
1998	4.3

Year	Rate
1997	5.6
1996	6.1
1995	6.1
1994	7.2
1993	7.6

Source: Local Area Unemployment Statistics.





Unemployment Rate Trends

Petersburg city

Year	Rate
2002	8.0
2001	6.7
2000	3.9
1999	5.3
1998	5.8

Year	Rate
1997	8.4
1996	9.0
1995	7.7
1994	9.6
1993	9.4





Population by Age

Dinwiddie County

	1990	2000	2010	2020	2030
0-14	4,185	4,904	4,797	5,162	5,540
15-24	2,940	2,626	2,948	2,869	3,156
25-34	3,446	3,151	3,071	3,364	3,275
35-44	3,116	4,432	3,959	3,837	4,191
45-54	2,644	3,704	4,474	3,991	3,826
55+	4,629	5,716	7,051	8,478	8,812
Total	20,960	24,533	26,300	27,700	28,800

Greensville County

	1990	2000	2010	2020	2030
0-14	1,937	1,694	1,574	1,508	1,309
15-24	1,299	1,269	1,345	1,239	1,265
25-34	1,202	2,095	2,265	2,356	2,447
35-44	1,271	2,381	2,575	2,678	2,781
45-54	987	1,755	1,898	1,974	2,050
55+	2,157	2,366	2,843	3,245	3,649
Total	8,853	11,560	12,500	13,000	13,500

Prince George County

	1990	2000	2010	2020	2030
0-14	6,196	6,872	7,056	8,240	8,625
15-24	4,903	5,944	5,672	5,306	6,342
25-34	5,326	5,373	6,591	5,951	5,406
35-44	4,515	5,652	6,345	7,630	6,887
45-54	2,908	4,311	4,405	5,215	6,579
55+	3,546	4,972	5,931	6,659	7,961
Total	27,394	33,124	36,000	39,000	41,800

Surry County

	1990	2000	2010	2020	2030
0-14	1,370	1,421	973	960	963
15-24	779	792	887	570	615
25-34	984	700	652	760	543
35-44	895	1,198	631	633	758
45-54	650	976	1,368	622	615
55+	1,467	1,742	2,590	3,855	4,205
Total	6,145	6,829	7,100	7,400	7,700

Sussex County

	1990	2000	2010	2020	2030
0-14	2,092	2,020	1,596	1,424	1,334
15-24	1,469	1,558	1,499	1,284	1,265
25-34	1,519	2,054	1,919	1,889	1,890
35-44	1,422	2,242	2,160	2,124	2,124
45-54	1,069	1,802	1,800	1,769	1,768
55+	2,677	2,828	3,024	3,310	3,419
Total	10,248	12,504	12,000	11,800	11,800

Colonial Heights city

	1990	2000	2010	2020	2030
0-14	2,836	3,137	2,992	3,140	3,281
15-24	2,163	2,087	2,255	2,117	2,262
25-34	2,242	2,029	1,934	2,021	1,888
35-44	2,433	2,498	2,089	2,011	2,110
45-54	1,959	2,252	2,591	2,163	2,075
55+	4,431	4,894	5,340	5,848	5,783
Total	16,064	16,897	17,200	17,300	17,400

2010 - 2030 data are projections.

Source: Virginia Employment Commission 8/03, U.S. Census Bureau.





Population by Age

Emporia city

	1990	2000	2010	2020	2030
0-14	1,100	1,190	927	926	853
15-24	647	692	629	481	518
25-34	750	646	459	427	331
35-44	634	803	747	530	493
45-54	499	643	760	743	525
55+	1,676	1,691	1,978	2,391	2,779
Total	5,306	5,665	5,500	5,500	5,500

Hopewell city

	1990	2000	2010	2020	2030
0-14	5,126	5,015	4,545	4,664	4,405
15-24	3,372	2,965	2,599	2,210	2,474
25-34	4,026	3,151	3,504	2,915	2,484
35-44	3,160	3,224	3,169	3,490	2,956
45-54	2,323	2,650	2,410	2,538	2,981
55+	5,094	5,273	5,473	5,583	5,999
Total	23,101	22,277	21,700	21,400	21,300

Petersburg city

	1990	2000	2010	2020	2030
0-14	7,713	7,120	5,501	4,937	4,529
15-24	5,662	4,377	3,928	3,269	3,169
25-34	6,619	4,393	3,285	3,240	2,840
35-44	5,255	4,883	3,812	3,106	3,143
45-54	3,723	4,460	4,536	3,923	3,340
55+	9,414	8,507	9,339	10,926	11,879
Total	38,386	33,740	30,400	29,400	28,900





Dinwiddie County

INDUSTRY SECTOR 2002 ****TOTAL**** 8,512 **AGRICULTURE** 37 D MINING UTILITIES D CONSTRUCTION 526 **MANUFACTURING** 1,224 TRADE-WHOLESALE 204 TRADE-RETAIL 268 **TRANSPORTATION** 1,457 **INFORMATION** D FINANCE/INSURNC 84 **REAL ESTATE** D PROF/TECH SERV 40 MANAGMNT OF COS D ADMIN/WASTE SER 129 **EDUCATIONAL SER** D **HEALTH CARE** 182 ARTS/ENTER/REC 133 ACCOMMDATN/FOOD 109 173 OTHER SERVICES

3,740

2,687

1,008

46

0

Greensville County

INDUSTRY SECTOR	2002
****TOTAL****	4,878
AGRICULTURE	54
MINING	D
UTILITIES	D
CONSTRUCTION	70
MANUFACTURING	1,783
TRADE-WHOLESALE	121
TRADE-RETAIL	160
TRANSPORTATION	377
INFORMATION	35
FINANCE/INSURNC	7
REAL ESTATE	D
PROF/TECH SERV	6
MANAGMNT OF COS	D
ADMIN/WASTE SER	D
EDUCATIONAL SER	D
HEALTH CARE	234
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	182
OTHER SERVICES	30
GOVT TOTAL	1,654
GOVT FEDERAL	2
GOVT STATE	953
GOVT LOCAL	700
UNCLASSIFIED	0

GOVT TOTAL

GOVT STATE

GOVT LOCAL

UNCLASSIFIED

GOVT FEDERAL

[&]quot;D" indicates nondisclosed data.





Prince George County

Surry County

INDUSTRY SECTOR	2002
****TOTAL****	11,346
AGRICULTURE	36
MINING	D
UTILITIES	D
CONSTRUCTION	618
MANUFACTURING	883
TRADE-WHOLESALE	488
TRADE-RETAIL	458
TRANSPORTATION	866
INFORMATION	D
FINANCE/INSURNC	75
REAL ESTATE	70
PROF/TECH SERV	213
MANAGMNT OF COS	D
ADMIN/WASTE SER	1,506
EDUCATIONAL SER	D
HEALTH CARE	138
ARTS/ENTER/REC	196
ACCOMMDATN/FOOD	652
OTHER SERVICES	164
GOVT TOTAL	4,895
GOVT FEDERAL	3,542
GOVT STATE	43
GOVT LOCAL	1,310
UNCLASSIFIED	0

INDUSTRY SECTOR	2002
****TOTAL****	1,976
AGRICULTURE	59
MINING	D
UTILITIES	D
CONSTRUCTION	103
MANUFACTURING	80
TRADE-WHOLESALE	29
TRADE-RETAIL	56
TRANSPORTATION	34
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	D
PROF/TECH SERV	43
MANAGMNT OF COS	D
ADMIN/WASTE SER	66
EDUCATIONAL SER	D
HEALTH CARE	D
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	D
OTHER SERVICES	27
GOVT TOTAL	474
GOVT FEDERAL	17
GOVT STATE	47
GOVT LOCAL	409
UNCLASSIFIED	0





Sussex County

INDUSTRY SECTOR 2002 ****TOTAL**** 3,654 **AGRICULTURE** 138 MINING D UTILITIES D CONSTRUCTION 44 **MANUFACTURING** 285 TRADE-WHOLESALE 102 TRADE-RETAIL 409 **TRANSPORTATION** 119 **INFORMATION** D FINANCE/INSURNC D **REAL ESTATE** 15 PROF/TECH SERV 14 MANAGMNT OF COS D ADMIN/WASTE SER 69 **EDUCATIONAL SER** D **HEALTH CARE** 407 ARTS/ENTER/REC D ACCOMMDATN/FOOD 383 OTHER SERVICES 165 **GOVT TOTAL** 1,310 **GOVT FEDERAL** 62 **GOVT STATE** 800 **GOVT LOCAL** 448 **UNCLASSIFIED** 0

Colonial Heights city

INDUSTRY SECTOR	2002
****TOTAL****	9,353
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	244
MANUFACTURING	432
TRADE-WHOLESALE	116
TRADE-RETAIL	4,025
TRANSPORTATION	19
INFORMATION	D
FINANCE/INSURNC	253
REAL ESTATE	206
PROF/TECH SERV	155
MANAGMNT OF COS	D
ADMIN/WASTE SER	276
EDUCATIONAL SER	26
HEALTH CARE	784
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	1,465
OTHER SERVICES	408
GOVT TOTAL	842
GOVT FEDERAL	67
GOVT STATE	21
GOVT LOCAL	754
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Emporia city

2002 **INDUSTRY SECTOR** ****TOTAL**** 4,041 **AGRICULTURE** D MINING D UTILITIES D CONSTRUCTION 32 **MANUFACTURING** 394 TRADE-WHOLESALE 109 TRADE-RETAIL 824 **TRANSPORTATION** D **INFORMATION** D FINANCE/INSURNC 76 **REAL ESTATE** 50 PROF/TECH SERV 57 MANAGMNT OF COS D ADMIN/WASTE SER D **EDUCATIONAL SER** D **HEALTH CARE** 873 ARTS/ENTER/REC D ACCOMMDATN/FOOD 509 OTHER SERVICES 109 **GOVT TOTAL** 211 **GOVT FEDERAL** 32 **GOVT STATE** 51 **GOVT LOCAL** 128 **UNCLASSIFIED** 0

Hopewell city

INDUSTRY SECTOR	2002
****TOTAL****	8,626
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	826
MANUFACTURING	2,237
TRADE-WHOLESALE	68
TRADE-RETAIL	692
TRANSPORTATION	65
INFORMATION	59
FINANCE/INSURNC	166
REAL ESTATE	108
PROF/TECH SERV	149
MANAGMNT OF COS	D
ADMIN/WASTE SER	149
EDUCATIONAL SER	34
HEALTH CARE	1,552
ARTS/ENTER/REC	31
ACCOMMDATN/FOOD	626
OTHER SERVICES	446
GOVT TOTAL	1,322
GOVT FEDERAL	36
GOVT STATE	55
GOVT LOCAL	1,231
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Petersburg city

INDUSTRY SECTOR	2002
****TOTAL****	15,912
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	687
MANUFACTURING	1,887
TRADE-WHOLESALE	880
TRADE-RETAIL	1,927
TRANSPORTATION	176
INFORMATION	186
FINANCE/INSURNC	468
REAL ESTATE	225
PROF/TECH SERV	345
MANAGMNT OF COS	D
ADMIN/WASTE SER	436
EDUCATIONAL SER	41
HEALTH CARE	1,456
ARTS/ENTER/REC	47
ACCOMMDATN/FOOD	1,069
OTHER SERVICES	723
GOVT TOTAL	5,204
GOVT FEDERAL	203
GOVT STATE	1,248
GOVT LOCAL	3,754
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.